

Appl. No. 10/567,713
Amdt. Dated March 9, 2011
Reply to Office Action of November 9, 2010

Attorney Docket No. 1002.104
Customer No.: 95674

REMARKS

This application has been carefully reviewed in light of the Office Action dated November 9, 2010. Claims 1 and 4-7 remain in this application. Claim 1 is the independent claim. It is believed that no new matter is involved in the arguments presented herein. Reconsideration is respectfully requested.

Interview Summary

Applicant thanks the Examiner for the courtesy of the telephone interview conducted on February 10, 2011. The substance of the interview is incorporated in this response. As explained during the interview, Applicant respectfully submits that the present application is in condition for allowance.

Art-Based Rejections

Claims 1 and 4-7 were rejected under 35 U.S.C. 103(a) over the admitted prior art (instant specification, pages 1 & 2) in view of U.S. Patent No. 5,672,363 (Sagawa), U.S. Patent No. 4,795,125 (Boros), and U.S. Patent No. 5,772,933 (Kotzab). Applicant respectfully traverses the rejections and submits that the claims presented herein are patentable in light of the arguments below.

The Claims are Patentable Over the Cited References

The present application is generally directed to a magnetic field molding device for producing a ferrite sintered magnet.

As defined by independent Claim 1, a magnetic field molding device used in producing a ferrite sintered magnet includes a die for compression-molding a molding slurry. The slurry is produced by dispersing a powder mainly composed of ferrite in a dispersion medium and injected into the die. A magnetic field generating source for applying a magnetic field to the slurry within the die in a

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given direction is provided. A temperature control unit is provided for controlling the temperature of the die, into which the molding slurry is injected, and the temperature of the molding slurry by heating the die. The temperature control unit includes a heater provided in the die for heating the die as well as a controller for controlling the heater. A heater-holding mechanism is provided along the delivery path to hold the heater for heating the die. The die is provided with a plurality of cavities for producing a plurality of molded bodies for a plurality of the ferrite sintered magnets. The die is provided with delivery paths for injecting the slurry into each of the cavities.

The applied references fail to disclose, teach or even suggest the above features of the claims of the present invention. In particular, the applied references fail to disclose or suggest “a temperature control unit for controlling the temperature of the die, into which the molding slurry is injected, and the temperature of the molding slurry by heating the die, the temperature control unit comprising a heater provided in the die for heating the die and a controller for controlling the heater,” as required by amended independent Claim 1 of the present invention.

Moreover, the applied references fail to teach or suggest “a heater-holding mechanism provided along the delivery path to hold the heater for heating the die,” as required by amended independent Claim 1 of the present invention.

Referring to Sagawa, as one of ordinary skill in the art would appreciate, that reference fails to disclose the temperature control unit of the present invention. Specifically, although Sagawa discloses that “The obtained green compacts were cured at 120 degrees for 1 hour,” (see, Sagawa, Col. 36, ll. 25-26 (EXAMPLE 4),) the disclosed process is for curing the resin contained in the green compacts, a completely distinct process than the heating of the die and slurry in the present invention.

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The advantageous effects of the present invention are described in the Present Specification. For example, as described in the last paragraph of page 16 and first paragraph of page 17 of the present specification,

Heating the mortar-shaped die 19 can increase slurry temperature in the cavity 13 more assuredly than heating the slurry before it is injected into the die, and consequently more efficiently reduces viscosity of the dispersion medium in the slurry and improves the dehydration properties of the slurry, thereby improving product yield. As discussed above, the cavities 13 can be uniformly heated even in a die provided with a plurality of cavities 13 or large-size die, to equalize density itself of the molded body as a result. Moreover, heating the mortar-shaped die 19 makes the magnetic field molding device 10 less sensitive to seasonally fluctuating ambient temperature, allowing it to produce a ferrite magnet of stable quality.

Moreover, one of ordinary skill in the art would appreciate another significant distinction between the disclosure of Sagawa and the present invention is that Sagawa's apparatus is used for producing a bonded magnet, not a ferrite sintered magnet of the present invention.

Concerning the two newly cited Boros and Kotzab references, those references are related to injection molding equipment. In contrast, the present invention is related to a magnetic field molding device used in producing a ferrite sintered magnet, comprising a die for compression-molding a molding slurry. As one of ordinary skill in the art would appreciate, the delivery path in Boros and Kotzab are related to an injection molding equipment and are fundamentally different from the delivery path in the magnetic field molding device of the present invention.

The injection molding equipment of Boros and Kotzab are conceptually different from the compression molding in the present invention for producing a ferrite sintered magnet. Boros and Kotzab merely heat plastic resin for melting whereas in the present invention, the molding slurry is heated for improved water

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releasability. Thus, the two references are distinguishable from the inventive step of the present invention.

Since the cited references fail to disclose, teach or suggest the above features recited in independent Claim 1, these references cannot be said to anticipate nor render obvious the invention which is the subject matter of that claim.

Accordingly, independent Claim 1 is believed to be in condition for allowance and such allowance is respectfully requested.

The remaining claims depend either directly or indirectly from independent Claim 1 and recite additional features of the invention which are neither disclosed nor fairly suggested by the applied references and are therefore also believed to be in condition for allowance and such allowance is respectfully requested.

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Conclusion

In view of the foregoing, it is respectfully submitted that the application is in condition for allowance. Reexamination and reconsideration of the application are requested.

Additionally, Applicant also respectfully requests the Examiner's supervisor to review this response.

If for any reason the Examiner finds the application other than in condition for allowance, the Examiner is requested to call the undersigned attorney at the Los Angeles, California telephone number (213) 623-6546 to discuss the steps necessary for placing the application in condition for allowance.

If there are any fees due in connection with the filing of the response, please charge the fees to our Deposit Account No. 50-5225.

Respectfully submitted,
ADLI LAW GROUP P.C.

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